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## State of California AIR RESOURCES BOARD

## **EXECUTIVE ORDER A-13-104**

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1996 model-year Caterpillar, Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Engine	Displacement	Exhaust Emission Control
	<u>Liters</u>	(Cubic Inches)	Systems and Special Features
TCP442DZDAAK	7.1	(442)	Turbocharger Oxidation Catalytic Converter Charge Air Cooler Engine Control Module

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

<u>Hydrocarbons</u>	Carbon <u>ydrocarbons</u> <u>Monoxide</u>		<u>Particulates</u>	
1.3	15.5	5.0	0.10	

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

Engine	Carbon		Nitrogen	<u>Particulates</u>
<u>Family</u>	<u>Hydrocarbons</u> <u>Monoxide</u>		<u>Oxides</u>	
TCP442DZDAAK	0.1	0.8	4.7	0.09

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 4th day of June 1996.

R. B. Sammerfield

Assistant Division Chief Mobile Source Division

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## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer	rpillar Inc. Engine Famil		Engine Family	TC	TCP442DZDAAK		
Displacement	7.	1 /		Liters	442	/ Cub	ic Inches
Maximum Rated Power:	33	0	HP@	2400	RPM	Engine Configu	ration: 16
Ignition: Compression	Х		– Compi	ession with Glow	Plug	Spark	
Fuel Type (s): Dedicated	×	Flex-Fuel		Dual-Fuel	Diesel X	M100	M85
	<del></del>	CNG	LNG	LPG	Other (specify)		
Diesel Cert Fuel: 13CCR 228	2	'40 CF	<del>-</del> R 86.131	3-90	40	CFR 86.1313-94	X
Primary Intended Service Cla	ass:	LHI	)	MHD X	HHD	Urban Bus	
Exhaust ECS (incl. MFI, T	C, CAC)	CAC	, ECM, T	rc, oc			
			(Lise a	hbreviations per S	SAE 11930 SEP91	)	

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate  @ Rated HP  mm³/stroke  (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
3126 - 1	330 @ 2400	149 (119.9)	116-7150	132-4428		104-4821
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## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer	Cater	pillar Inc.		Engine Fam	nily		TC	P442DZDAAK	
Displacement	7.	1 /		Liters		44	2	/ Cubi	ic Inches
Maximum Rated Power:	330	)	HP@	240	00	RPM		Engine Configu	ration: 16
Ignition: Compression	X		Compr	ession with (	Glow Plu	<u> </u>		Spark	<u> </u>
Fuel Type (s): Dedicated		Flex-Fuel		Dual-Fuel		Diesel	X	M100	M85
_		CNG	LNG	LPG	Oti	her (spec	ify)	·	
Diesel Cert Fuel: 13CCR 2282		40 CFR	86.131	3-90			40	CFR 86.1313-94	X
Primary Intended Service Class	:	LHD		MHD	X	HHD		Urban Bus	
Exhaust ECS (incl. MFI, TC,	CAC)	CAC,	ECM, T	C, OC				_	
			AT T	1	CAE	11020 GE	DO 1		

(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate  @ Rated HP  mm³/stroke  (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
3126 - 1	330 @ 2400	149 (119.9)	116-7150	132-4427		104-4821

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